

TITLE OF THE INVENTION

ELEVATOR SYSTEM WITH ONE OR MORE ELEVATOR CARS MOVING
INDEPENDENTLY IN A SAME SHAFT

5 CROSS REFERENCE TO RELATED APPLICATION

This application is a Continuation of co-pending PCT
International Application No. PCT/FI02/00816 filed on Octo-
ber 21, 2002, which designated the United States, and on
which priority is claimed under 35 U.S.C. § 120, the entire
10 contents of which are hereby incorporated by reference.

BACKGROUND OF THE INVENTION

Field of the Invention

The present invention relates to an elevator system es-
15 pecially for high-rise multi-floor buildings where a passen-
ger who wants to get to a floor in the top part has to change
to an elevator that mainly serves the topmost floors only.

In very tall buildings, it is generally economically not
20 possible to provide elevator shafts extending through the
entire height of the building from the bottom floor to the
top floor so that each elevator could serve all floors. For
this reason, elevators are traditionally divided into differ-
ent zones in the vertical direction, of which the lowest zone
25 extends from the entrance floor, hereinafter called ground
floor, to a floor at a given height, this zone being called
low-rise zone, while the highest zone, called high-rise zone,
extends from a given transfer floor, a so-called sky lobby
floor to the topmost floors of the building. Between these
30 zones, depending on the height of the building, there may be
one or more intermediate zones, so-called mid-rise zones
serving intermediate floors in the building from their re-
spective transfer floors. The problem is generally that each
zone is served by only one elevator in one elevator shaft, so
35 it is necessary to provide for each zone and each elevator
car a separate shaft extending from the ground floor of the